

[METHOD FOR FABRICATING PASSIVATION LAYER]

Abstract

A method of fabricating a passivation layer is provided. A substrate with a plurality of device structures and at least an interconnect thereon is provided. A patterned metallic layer is formed over the interconnection layer. A plasma-enhanced chemical vapor deposition process is performed to form a first passivation over the metallic layer such that the processing pressure is higher (and/or the processing power is lower) than the pressure (the power) used in prior art. A moisture impermeable second passivation is formed over the first passivation layer. With the first passivation formed in a higher processing pressure (and/or lower processing power), damages to metallic layers or devices due to plasma bombardment is minimized.